

REMARKS/ARGUMENTS

Claims 1-2, 4 and 7-9 are pending in this application. By this amendment, Claims 1 and 9 are amended, and Claim 3 is canceled. Favorable reconsideration of this application, in view of the above amendments and in light of the following remarks and discussion, is respectfully requested.

The Office Action rejects Claims 1-4, 7, 8 and 9 under 35 U.S.C. § 102(b) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over U.S. Patent No. 5,933,323 to Bhatia et al.

As stated above, independent Claims 1 and 9 have been amended. Applicants respectfully assert that support for the changes to the independent claims is disclosed at least with respect to Figures 5-7 and the corresponding disclosure on pages 17-18. Accordingly, no new matter has been added.

Exemplary embodiments of the present invention are directed to a heat transport device that has a small angular dependency relative to the direction of gravity and has a structure suitable to allow for a reduction in size and thickness.

With respect to the rejection of the claims under § 102 or 103, Bhatia et al. does not teach or disclosed, a condenser having a plurality of wicks for generating capillary force for refluxing fluid, each wick includes a plurality of grooves wherein the plurality of grooves forming each wick are arranged in a radial pattern centered at a joint of the liquid phase channel, as recited in independent claims 1 and 9.

~~The Office Action asserts that Bhatia et al. discloses that the wick structure can be composed of grooves or wire mesh or any other porous material. Applicants respectfully disagree and assert that the disclosure in column 3, lines 30-35 of Bhatia et al. teaches that the wick segments 103 of the flat heat pipe comprise grooves along the walls with the hollow~~

interior region of the casing. As such, Bhatia et al. is merely disclosing that each segment 103 is a groove. That is, the segments are grooves, not that each segment comprises a plurality of grooves.

However, assuming *arguendo* that each wick segment 103 includes multiple grooves, Bhathia et al. still does not disclose the features of the claimed invention. Specifically, independent Claims 1 and 9 recite that the plurality of grooves formed that form each wick are arranged in a radial pattern centered at a joint of the liquid phase channel. At least this feature is not taught or suggested in the Bhatia et al. Again, if each wick segment 103 included a plurality of grooves as asserted in the Office Action, then the grooves would be formed in a linear pattern towards the center in order to direct the fluid to the center. In contrast, the claimed invention recites that the grooves forming each wick are arranged in a radial pattern.

Further, as shown in Fig. 3 of Bhatia et al., the center of the heat pipe structure contains a fluid inside the hollow region of the flat heat pipe near inner wick ring 301 that vaporizes, absorbing heat in that region. The vaporized fluid is caused to be pumped through vapor channels 304 to the cooler regions near outer wick ring 302. At or near the outer wick ring 302 the vaporizing fluid re-condenses in the capillary action of the wick segments causing the condensed fluid to flow from outer wick ring 302 along wick segments 303 back to the heat source at inner wick ring 301. Accordingly, Bhatia et al. merely discloses a single wick enclosed with a casing 310. The single wick includes the inner wick ring 301 and the outer wick ring 302 with multiple wick segments 303 connecting the inner and outer wick rings. The Office Action appears to assert that the plurality of wicks are formed by the outer wick ring 302 and the wick segments 303. However, Applicants respectfully assert that the wick portions do not include a plurality of grooves.

At least these features of independent Claims 1 and 9 are not shown in Bhatia et al.
Thus, Applicants respectfully request the rejection of independent Claims 1 and 9 under 35 U.S.C. § 102(b) or, in the alternative, under 35 U.S.C. § 103(a) be withdrawn and the independent claims allowed.

Dependent Claims 2, 4 and 7-8 depend from independent Claim 1. Thus, Applicants respectfully request that the rejection of dependent Claims 1, 2, 4 and 7-8 under 35 U.S.C. § 102(b) or, in the alternative, under 35 U.S.C. § 103(a) be withdrawn and the dependent claims allowed.


Consequently, in view of the present amendment, no further issues are believed to be outstanding in the present application, and the present application is believed to be in condition for formal allowance. A Notice of Allowance for Claims 1-2, 4 and 7-9 is earnestly solicited. Should the Examiner deem that any further action is necessary to place this application in even better form for allowance, the Examiner is encouraged to contact the undersigned representative at the below listed telephone number.

Respectfully submitted,

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